# FOCUSED SITE INSPECTION PRIORITIZATION SITE EVALUATION REPORT

## FIAT ALLIS PLANT OF NORTH AMERICA, INC. 3000 SOUTH 6TH STREET SPRINGFIELD, ILLINOIS

**CERCLIS ID NO.: ILD067406280** 

## Prepared for:

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY SITE ASSESSMENT SECTION

77 West Jackson Boulevard Chicago, Illinois 60604

Date Prepared:

September 19, 1995

U.S. EPA Region: 5

Contract No.:

68-W0-0037

Technical Direction Document No.:

T05-9506-208

Prepared by: Ecology

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EPA Region 5 Records Ctr.



# ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415 International Specialists in the Environment

September 29, 1995

-

Ms. Sonia Vega U.S. Environmental Protection Agency, Region 5 77 West Jackson Boulevard Chicago, Illinois 60604

Re:

Fiat Allis Plant of North America, Inc. site

Springfield, Illinois

CERCLIS ID No.: ILD067406280 Focused Site Inspection Prioritization

Contract No.: 68-W0-0037 TDD No.: T05-9506-208

Dear Ms. Vega:

Enclosed are the final Focused Site Inspection Prioritization (FSIP) report and enclosures for the Fiat Allis Plant of North America, Inc. site, in Springfield, Illinois. Draft copies of this report were submitted previously to you and to Mr. Tom Crause of the Illinois Environmental Protection Agency (IEPA).

The final FSIP is presented in two volumes. Volume 1 contains the Site Evaluation Report (SER). Volume 2 contains the United States Environmental Protection Agency Recommendation Form for the site as Enclosure 1, and a transmittal memorandum and Hazard Ranking System (HRS) scoresheets as Enclosure 2.

Should you have any questions, please call me at 312/663-9415.

Sincerely,

Linda Knorz

Ecology and Environment, Inc.

xc:

Steve Skare, Ecology and Environment, Inc.

Tom Crause, IEPA

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## 1. INTRODUCTION

The Ecology and Environment, Inc. (E & E), Technical Assistance Team (TAT) was assigned by the United States Environmental Protection Agency (U.S. EPA), under Contract No. 68-W0-0037, Technical Direction Document (TDD) No. T05-9506-208, to evaluate the Fiat Allis Plant of North America, Incorporated (Fiat) site in Springfield, Sangamon County, Illinois. E & E performed Focused Site Inspection Prioritization (FSIP) activities to determine whether, or to what extent, the site poses a threat to human health and the environment. This FSIP report presents the results of E & E's evaluation and summarizes the site conditions and targets pertinent to the migration and exposure pathways associated with the site. Background information was obtained from a Preliminary Assessment (PA) report submitted by the Illinois Environmental Protection Agency (IEPA), a Site Screening Inspection (SSI) report submitted by the IEPA, personal communications with various state and local agencies and U.S. EPA site files.

This report is organized into six sections, including this introduction. Section 2 describes the site and provides a brief site history. Section 3 provides information about previous investigations conducted at the site. Section 4 provides information about the four migration and exposure pathways (groundwater migration, surface water migration, soil exposure, and air migration). Section 5 is a summary of the FSIP. References used in the preparation of this report are listed in Section 6.

#### 2. SITE DESCRIPTION AND HISTORY

The Fiat site is located at 3000 South 6th Street, in Springfield, Sangamon County, Illinois (sec. 11, T. 15 N, R. 5 W). The coordinates of the site are latitude 39° 47'54" North and longitude 89° 39'18" West (IEPA 1987). The Fiat site has been an inactive manufacturer of heavy construction equipment since 1985.

The land use surrounding the site includes residential areas to the east and commercial areas to the north, south and west. Streets bordering the site include; South 6th Street to the west; Stevenson Drive on the south; 11th Street on the east; and Stanford Avenue on the north. The nearest residential area is approximately 50 feet east of the site and the population within one mile of the site is approximately 10,645 persons (Fagan 1995). The site location is shown on Figure 2-1 (USGS 1973a; 1973b).

The former Fiat facility is situated on approximately 125 acres. In 1991, all the manufacturing buildings were razed. Currently, the majority of the site is open with a few new office complexes. Site features are shown in Figure 2-2. The nearest surface water body is an unnamed tributary of Lake Springfield approximately 0.20 miles southeast of the site. Lake Springfield is located approximately 2 miles southeast of the site.

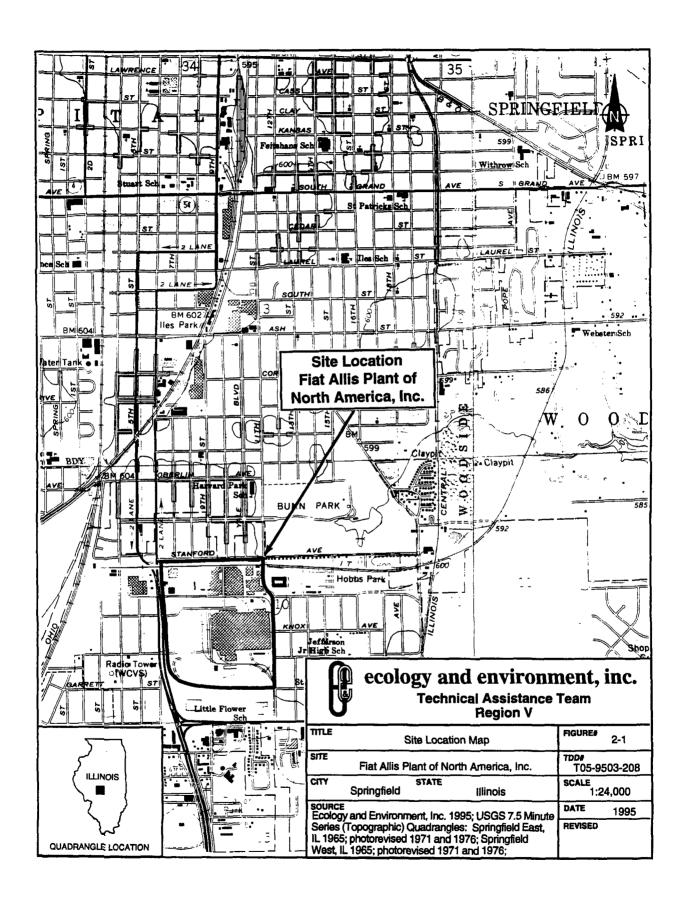
In 1974, Fiat purchased the facility from Allis Chambers. It is estimated the site has been used as a manufacturing facility of heavy equipment since the late 1930s (Predan 1995). Site ownership and use prior to the 1930s is unknown. The site had numerous structures including; manufacturing buildings, an engineering research center, and an educational center. An electroplating operation was employed at the Fiat site. Cyanide was used in the copper plating of gears and pinions. The plating line consisted of a caustic vat, a rinse vat, a work table, and a copper plating vat. Below the plating line was a sump and a drainage pit for plating sludge. The sump was estimated to hold 1,043.5 gallons of plating sludge (IEPA)

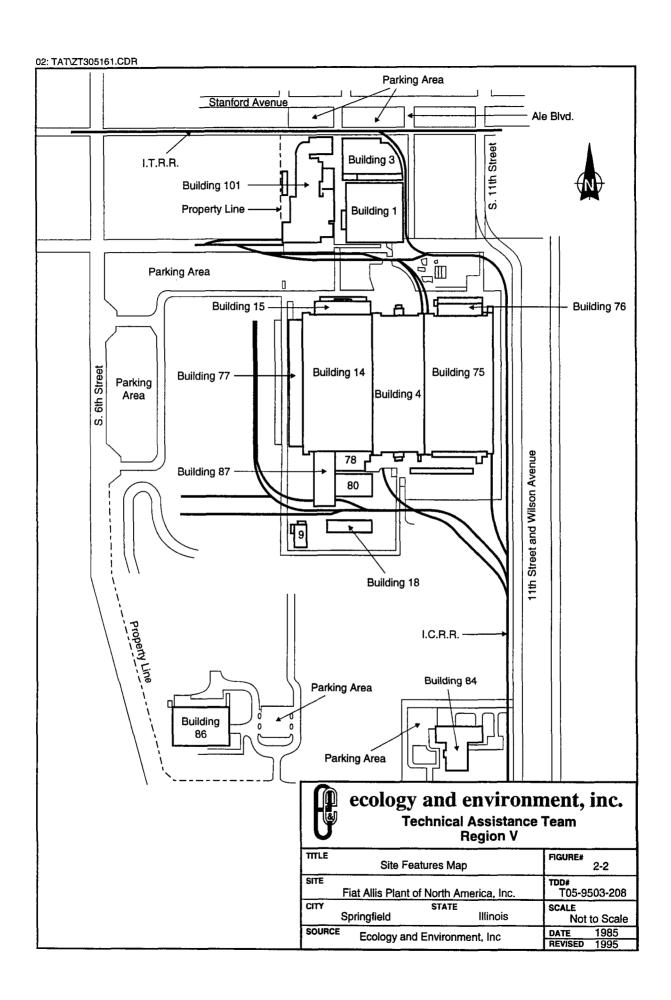
1985). The electroplating wastes were not considered RCRA hazardous wastes during the facilities operation becauses these wastes were not stored, treated or disposed of on site.

In 1985, the Fiat facility ceased operations. During the closing process, wastes from the plating line area were stored at the site for more than 90 days, and therefore were considered hazardous waste, namely electroplating wastes (F007). A Resource Conservation and Recovery Act (RCRA) closure plan for the Fiat site was approved by the IEPA in 1986. The plating line and surrounding contaminated soil was removed. In 1992, the IEPA certified the Fiat site closed in accordance with the RCRA closure plan (IEPA 1992).

In 1988, several underground storage tanks (UST) were removed from the site. It was discovered that one diesel tank had leaked two to five gallons of fuel. The contaminated soil was excavated and the surrounding soils tested. Results were below IEPA leaking underground storage tank (LUST) cleanup objectives.

In 1991, the property was sold to a developer who razed most of the buildings. During its years of operation, the Fiat site did not have a RCRA permit. In July 1986, a RCRA closure plan for the plating area was approved by the IEPA. In February 1992, the plating area was certified closed by the IEPA. The Fiat facility was issued a National Pollutant Discharge Elimination System (NPDES) permit (permit number IL0062642) beginning in 1981 and was terminated in 1993 (Kuggler 1995).





#### 3. PREVIOUS INVESTIGATIONS

The Fiat site was initially discovered on April 9, 1985, when the IEPA received a letter from an anonymous citizen alleging that "polychlorinated biphenyls (PCBs) regularly leaked on the ground near the electrical substations throughout the plant. In addition, cyanide was dumped near the heat treatment facilities along with other industrial toxins throughout the area" (Citizen Complaint 1985). On May 9, 1985, the IEPA conducted an investigation of the Fiat site in response to the complaint alleging on-site disposal of toxic and hazardous waste. The investigation found no apparent on-site disposal of PCB wastes, therefore, no samples were collected for PCB analysis. However, a soil sample was collected near a manhole sewer outside the plating line (Building 1). The sample was analyzed for cyanide, cadmium, chrome, mercury and copper (IEPA 1985). Chemical results of the soil sample revealed cadmium at 227 milligrams per kilogram (mg/kg), chrome at 72 mg/kg, copper at 600 mg/kg, cyanide at 12 mg/kg, and mercury at 0.049 mg/kg (IEPA 1985).

In March 1987, an SSI was conducted by the IEPA at the site. The Fiat facility was in the process of closing; all operations had ceased and the equipment and machinery were being removed. During the SSI, the IEPA observed drums containing waste solvents stored outside, and some drums had missing bungs and tops. The Fiat site representative stated that the Springfield Fire Department requested that the drums be stored outside to decrease the chances of the drums exploding or catching fire (IEPA 1987). According to the SSI report, an oil discharge occurred from the Fiat Allis Engineering Research Center building in 1979. The oil entered an unnamed tributary that flows into Lake Springfield (IEPA 1987).

The SSI also included the collection of four on-site soil samples (sample numbers X101 through X104), and an off-site surface water sample from a storm sewer south of the

site that was observed to be discharging oil. Samples were analyzed for the Hazardous Substance Target Compound List (TCL) chemicals. Volatile organic compounds (VOCs) were detected in sample X101 and X102 only. The sample results and sample locations from the 1987 SSI are shown in Appendix A (IEPA 1987).

#### 4. MIGRATION AND EXPOSURE PATHWAYS

This section describes the four migration and exposure pathways associated with the Fiat site. Section 4.1 discusses the groundwater migration pathway; Section 4.2 discusses the surface water migration pathway; Section 4.3 discusses the soil exposure pathway; and Section 4.4 discusses the air migration pathway.

### 4.1 GROUNDWATER MIGRATION PATHWAY

This section discusses regional and site-specific geology and soils, groundwater releases, and targets associated with the groundwater migration pathway at the site.

### 4.1.1 Geology and Soils

The Fiat site is located within the Illinois Basin, a structural basin of crystalline and sedimentary rocks overlain by unconsolidated geologic deposits. The bedrock surface in Sangamon dips gently to the southeast toward the center of the basin, which is located in southeastern Illinois. Bedrock crops out along some streams in the county, but in other areas is overlain by as much as 150 feet of unconsolidated deposits. The uppermost bedrock unit in the Springfield vicinity belongs to the Pennsylvanian system and has been mined extensively for its deposits of coal. The depths of the regional coal deposits range from approximately 150 to 200 feet.

Unconsolidated deposits range in thickness from less than 1 foot at bedrock outcrops to more than 150 feet in upland areas away from the valleys. These deposits consist of glacial till and loess outside of the river valleys and river sediments and glacial outwash within the river valleys (ISGS 1976).

Only a moderate potential for development of groundwater resources exists within Sangamon County. Minimal groundwater supplies are available from shallow bedrock. Water of shallow bedrock wells is generally obtained from beds of sandstone only a few feet thick or from fractured shale or limestone. Yields from shallow bedrock wells are reported to be no more than a few gallons per minute. The mineral content of groundwater within bedrock and below a depth of 200 feet is too high for most purposes. Availability of groundwater from unconsolidated geologic deposits ranges from poor to favorable.

Formerly, for approximately 50 years, the municipal water supply for the city of Springfield was obtained from groundwater of the Sangamon River valley until Lake Springfield became the source of municipal water in 1936. The municipal wells and infiltration galleries were located in the Sangamon River Valley just north of the city (ISGS 1976).

### 4.1.2 Groundwater Releases

The potential exists that a release of hazardous substances from the Fiat site to groundwater has occurred based on 1987 IEPA SSI analytical results of soil samples collected in the vicinity of the plating line indicating VOC contamination. Since 1987, the site owner conducted RCRA closure activities and the plating area was certified closed by the IEPA in 1992. No on-site monitoring wells exist at the site, therefore, no groundwater data is available.

## 4.1.3 Targets

The 100,000 residents of City of Springfield obtain drinking water from Lake Springfield located approximately 2 miles south of the site. No residents obtain drinking water from groundwater wells within 4 miles of the site (City of Springfield Public Works 1995).

## 4.2 SURFACE WATER MIGRATION PATHWAY

It is possible that a release to surface water has occurred according to the 1987 SSI report in which the IEPA observed oil being discharged from an off-site storm sewer outlet to an unnamed tributary of Lake Springfield. This storm sewer is located south of the site behind a U-Haul facility. A water sample was collected from this storm sewer by the IEPA,

however, no information regarding the analytical results for this sample was availabe in the site file. The 1987 SSI report stated that an oil discharge from the Fiat Allis Engineering Research Center occurred in 1979. The oil entered an unnamed tributary of Lake Springfield south of the site, near the U-Haul facility. Further information regarding these oil releases is not available in the site files. The Fiat site had an NPDES permit from 1981 until it was terminated in 1993, during which time no violations were reported. No engineered surface waater control systems were in place during the sites operating years.

The site is not located inside the 500-year flood plain of the unnamed tributary of Lake Springfield. No water intakes are located on the unnamed tributary to Lake Springfield. Water intakes are located on Lake Springfield 2.5 miles east of the site. The lake is used recreationally. Wetlands occur along the banks of the unnamed tributary of Lake Springfield located 0.2 miles southeast of the site. These wetlands are plaustrine wetlands characterized to be broad-leafed deciduous vegetation, or emergent vegetation as classified on U.S. Department of Interior (USDI) National Wetlands Inventory maps (USDI 1988).

#### 4.3 SOIL EXPOSURE PATHWAY

A release of hazardous substances from the Fiat site to surrounding soils has been documented based on sample results from the 1987 IEPA SSI activities. Chemical analysis of on-site soil samples revealed TAL and TCL chemicals including VOC and heavy metal contamination in the vicinity of the plating building. After operations ceased at the Fiat site in 1985, the plating line was removed under a RCRA closure plan. The cleanup activites were conducted under IEPA guidance. In 1992, the site was certified closed in accordance with RCRA closure requirements.

In 1988, during UST removal activities conducted by Andrews Engineering, a diesel fuel tank was discovered to have leaked 2 to 5 gallons of fuel. The contaminated soil was removed and the excavation area tested. Results of the soil samples were below IEPA LUST cleanup objectives. In December 1990, a previously unknown UST was discovered beneath a building on the north side of the property. The tank contained a red hydraulic fluid. During the removal process, the tank ruptured and spilled several gallons of fluid. The contaminated soil was removed and the soil surrounding the UST was sampled for benzene, toulene, ethylbenzene and xylene (BTEX). BTEX sample results were below IEPA standards (IEPA 1990).

During the operating years, the Fiat site employed between 3,000 and 5,000 workers. The site was fenced and had 24-hour security (Predan 1995). The nearest residence is located 50 feet east of the site. No schools or daycare centers are located within 200 feet of the site. No endangered species are known exist in the area of the site. Wetlands occur along the banks of the unnamed tributary of Lake Springfield approximately 0.2 miles southeast of the site (USDI 1988).

### 4.4 AIR MIGRATION PATHWAY

A release of hazardous substances to air is unlikely to have occurred at the Fiat site. No records were found relating to citizens complaints regarding potential odor nuisances emanating from the Fiat site.

Between 3,000 and 5,000 workers were employed at the Fiat site during operations. The population surrounding the site is relatively high, approximately 10,645 persons live within a one-mile radius of the site, based on straight-line distances (Fagan 1995).

#### 5. SUMMARY

E & E has evaluated the Fiat site using existing IEPA and U.S. EPA, local information services, and personal communications. The Fiat site has been an inactive manufacturer of heavy construction equipment facility since 1985 (IEPA 1987).

In March 1987, the IEPA conducted a CERCLA SSI in which four on-site samples were collected. The results indicated VOC contamination in two of the four samples. During UST removal activities in 1988, a diesel fuel tank was found to contain a leak. Approximately 2 to 5 gallons of fuel was ponded beneath the tank. In 1990, an unknown UST was discovered beneath the floor of a building on the north side of the property. The tank contained red hydraulic fluid. The tank was ruptured during the removal process, and several gallons of fluid leaked to the surrounding soil. Both spills were excavated and the surrounding soils tested. Chemical analysis of soil samples from excavation areas were below IEPA LUST standards.

The site is located in a mixed residential/commercial area. In 1991, the property was sold to a developer. All equipment was removed. All the buildings were razed except the educational center building located in the southeast corner of the site. A few new office buildings currently occupy the site.

The City of Springfield, population approximately 100,000, obtains drinking water from intakes in Lake Springfield located approximately 2 miles southeast of the site. No private drinking water wells exist within a 4-mile radius of the site. The geology in the area of the site consists of unconsolidated deposits of glacial till. Groundwater yields from the shallow bedrock in the site area is generally poor.

The potential exists that a release of hazardous substances to groundwater has occurred based on IEPA SSI soil sample results in 1987. VOC contamination was detected in soils surrounding the plating building. All contaminated soils were later removed during RCRA closure activities conducted by the site owner. In 1992, the IEPA certified the site closed in accordance with the RCRA closure plan.

The potential exists that a release of hazardous substances to surface water has occurred based on IEPA observations of an oil discharge from a off-site storm sewer in 1987. The 1987 IEPA SSI report also stated that in 1979 an oil discharge occurred from the Fiat Engineering Research Center into a storm sewer. The Fiat site had an NPDES permit from 1981 to 1993 during which no violations were reported.

An unnamed tributary to Lake Springfield, the nearest surface water body, is located approximately 0.2 miles southeast of the site. It is suspected that on-site storm sewers drain into this unnamed tributary.

A release of hazardous substances to the soil has been documented based on 1987 IEPA sample results. However, since the IEPA inspection the site has been closed and all contaminated soil has been removed in accordance with a RCRA closure plan. The IEPA certified the site closed in 1992.

During its years of operation, the Fiat site was fenced and had 24-hour security. The nearest residence is located 50 feet east of the site. No schools or daycare facilities are located within 200 feet of the site. Approximately 10,645 persons live within a one-mile radius of the site based on straight-line distances. Wetlands occur along the banks of the unnamed tributary located 0.2 mile southeast of the site.

A release of hazardous substances to air is unlikely. No records of complaints regarding odors are known to exist. Wetlands occur along the banks of the unnamed tributary of Lake Springfield, however, based on past site operations, it is not suspected that a release of particulates to air would affect the surrounding wetlands.

#### 6. REFERENCES

Note: References not included as reference documentation in Appendix B: documents that are currently available within the U.S. EPA files; copyright documents that are currently available in the E & E library; maps produced by either the United States Geologic Survey or the Illinois State Geologic Survey; and documents that are created by various state agencies for public use.

- Citizen Complaint to the IEPA, February 28, 1985, Anonymous Letter Alleging Hazardous Waste Dumping at the Fiat Allis North America, Inc. Plant, Springfield, Illinois.
- City of Springfield Public Works, July 28, 1995, telephone communication with Qing Jiang, Ecology and Environment, Inc. (E & E), Buffalo, New York.
- Fagan, Gail, August 14, 1995, Sangamon County Planning Office, telephone communication with Linda Knorz E & E, Chicago, Illinois.
- Illinois Environmental Protection Agency (IEPA), February 18, 1986, Preliminary Assessment of the Fiat Allis North America, Inc., Plant, Springfield, Illinois.
- \_\_\_\_\_, May 9, 1985, Site Investigation in Response to Citizens Complaint Alleging Hazardous Waste Dumping at the Fiat Allis Plant North America, Inc., Springfield,
- \_\_\_\_\_, March 24, 1987, Site Screening Inspection Report for the Fiat Allis North America, Inc., Plant, Springfield, Illinois. CERCLIS ID No. ILD067406280.
- \_\_\_\_\_, February 27, 1992, Letter Certifying the Fiat Allis Plating Area Closed in Accordance with RCRA Closure Plan, Springfield, Illinois.
- Illinois State Geological Survey (ISGS), 1976, Circular 497, Geology for Planning in the Springfield-Decatur Region, Illinois.
- Kugler, Greg, Andrews Environmental Engineering, September 7, 1995, telephone communication with Linda Knorz, E & E, Chicago, Illinois.
- Predan, Robert, Esquire for Fiat Allis North America, Inc., September 5, 1995, telephone communication with Linda Knorz, E & E, Chicago, Illinois.

- United States Department of Interior (USDI), 1988, National Wetland Inventory Map, Springfield West.
- United States Geological Survey (USGS), 1973a, Topographic Map, 7.5 Minute Series, Springfield East.

\_\_\_\_\_, 1973b, Topographic Map, 7.5 Minute Series, Springfield West.

# APPENDIX A 1987 IEPA SSI SOIL SAMPLE RESULTS

Page of	1671205008/5ary
ILLINOIS ENVIRONMENTAL DIVISION OF LAND POL CHAIN OF CL	LUTION CONTROL STATE OF
I certify that the samples listed below wer sample bottle was sealed intact by me and the seal of each bottle.	e collected in my presence and that each
Site Inventory No. <u>L1671205008</u>	County <u>SANGAMON</u>
Federal I.D. No. <u>ILD 067406286</u>	Fiat Allis North America Inc. (Facility Name)
Sample No. Initials  X/OI  X/OZ  Sealer's Signature  Sampler(s)  Ken lage  Consisting of the Indicated No. of Bottles  2  2  2  2  3  5  6  Consisting of the Indicated No. of Bottles  And Description  Greg  Consisting of the Indicated No. of Bottles  And Description  Consisting of the Indicated No. of Bottles  And Description  Consisting of the Indicated No. of Bottles  And Description  Consisting of the Indicated No. of Bottles  And Description  Consisting of the Indicated No. of Bottles  And Description  Consisting of the Indicated No. of Bottles  And Description  Consisting of the Indicated No. of Bottles  And Description  Consisting of the Indicated No. of Bottles  And Description  Consisting of the Indicated No. of Bottles  Con	Date Collected Sealed  03/25/87 //:25 AM/PM  03/24/87 //:25 AM/PM  03/24/87 /2:15 AM/PM  03/24/87 /2:15 AM/PM  03/24/87 /2:10 AM/PM  AM/PM  AM/PM  Date 03/24/87 Time 2:30 AM/PM
I certify I received the above samples, wit sealer's initials written on each sample se	
By (Signature) Date Time	(Signature) Date Time
Tometh Lyane 03/29/87 3:00 AM/P	1 Sung Journ 3.25-87 1000 MIP
AM/P AM/P	
AM/P	M AM/P
AM/P	
AM/P	
all dates on the 23rd changed to	the 24 they Kemil Lifen
I certify I received the above samples with sealer's initials written on each sample sea	each seal on each bottle intact, and the al. After recording these samples in the

LAB CUSTODIAN

CARRIERS

SAMPLING TEAM

official record book, these same samples will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Date 3-25-87 Time 1000-141 P.M.

Lab Location (City)

7.88 5 0 1987

IL 832-1147 LPC 141 9/83

# IEPA Contract Laboratory Service Chemical Analysis Form

REGION CENTRAL FIAT AUG North F	CO. S	ANGAM	05.	00	9 MONITOR POINT NUM 18 (see Instructions DATE COLLECTED 0 23	3/247	0 / 2P 22 8 7 728
FOR LEPA USE ONLY	COMPLAINT	NO.	BACKG	ROUND	SAMPLE (X) TIME COL	LECTED /	<u>/:=</u>
DATE RECEIVED  420  SAMPLING PURPOSE C (see Instructions) TIME CARD PROGRAM CODE  49	00E यह		MONITO (see ) Sampl	DR PO. Instri	54 (24 HR C COLLECT SAMPLE uctions) 59 INT SAMPLED BY uctions) 60 OTHE ELD FILTERED - INORGANI	R (SPECIF	
				<u>/</u> y_s	substance mixed	<u>-</u>	_
COLLECTOR COM	ENTS 30	Turnar	ound	Tin	me		102
SPECIAL INSTRUCTION  Ken flage COLLECTED BY  TEST REQUESTED	KLD 143 145 INITIALS	JEPA DIVISIO	N OR C		UPS TRANSPORTED BY  Tagget List of	Lazom	R CO.
FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE	STORET NUMBER	REMARKS SEE INST.	REPL APP	< OR >	YALUE		ORTING EYEL OF DECI
DEPTH TO WATER (ft. below LS)	7 2 0 1 9						
ELEVATION OF GN SURFACE (ft. ref MS	30 - 34 L) 7   9 9 3	35	36		38	<del>17                                    </del>	<u> 19</u>
TOTAL WELL DEPTH (ft. below LS)	72008						
ALXALINITY TOTAL (mg/T as CaCO3) +1							
REDOX POTENTIAL (millivolt)-Field	00090						
pH (units)-Field	00400		<del></del>				
SPEC CONDUCTANCE (umhos )-Field	00034		_				
TEMP OF WATER SAMPLE (OF)-FIELD	00011		_	_			

# IEPA ANALYSIS PROGRAM Report of VOA Results

Site ID : X101 Sample # : 87001447 Moisture : 7.5

PARAMETER	REMARKS (see inst.)	VALUE (ug/kg) ************************************	DILUTION FACTOR
Chloromethane	U	220	20
Bromomethane	U	220	20
Vinyl Chloride	U	550	20
Chloroethane	U	220	20
Methylene Chloride	В	690	20
Acetone	В	16	20
Carbon Disulfide	บ	110	20
1,1-Dichloroethene	Ü	110	20
1,1-Dichloroethane	U	110	20
t-1,2-Dichloroethene	U	110	20
1,2-Dichloropropane	U	110	20
Chloroform	U	110	20
1,2-Dichloroethane	U	110	20
# 2-Butanone		620	20
1,1,1-Trichloroethane	IJ	110	20
Carbon Tetrachloride	U	110	20
Vinyl Acetate	U	220	20
Dichlorobromomethane	U	110	20
c-1,3-Dichloropropene	บ	110	20
Trichloroethene	U	110	20
Benzene	ប	110	20
Chlorodibromomethane	U	110	20
1,1,2-Trichloroethane	U	110	20
t-1,3-Dichloropropene	U	110	20
2-Chloroethyl Vinyl Ether	U	220	20
Bromoform	U	110	20
2-Hexanone	U	550	20
4-Methy1-2-pentanone	ប	220	20
1,1,2,2-Tetrachloroethane	ប	110	20
Tetrachloroeth <b>ene</b>	U	110	20
Toluene	U	110	50
Chlorobenzene	U	110	20
# Ethylbenzene		280	20
Styrene	U	110	20
<b>栄Total Xylenes</b>		<b>79</b> 0	20

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# IEPA ANALYSIS PROGRAM Report of INDRGANIC Results Soil Samples

Site ID : X101 Sample # : 87001447

		(		
<b>5</b> .5.5	REMARKS	OR	VALUE	DILLUTION
PARAMETER	(see inst.)	<b>)</b>	(ug/kg)	FACTOR
No. of the second secon	*********	###	********	******
* Aluminum			1880000	1
Antimony	IJ	ζ.	8000	1
* Arsenic			3600	1
* Barium		_	51400	1
Beryllium		<b>(</b>	1000	1
Cadmium		(	1000	1
*Calcium			63300000	10
Chronium	U	(	1600	1
Cobalt	IJ	(	10000	1
* Copper			17800	1
¾ Iron			9340000	1
* Lead			130000	1
* Magnesium			15400000	1
%-Hanganese			305000	1
Hercury		(	200	1
*Potassium			330000	1
* Nickel			17600	1
Selenius	URE	<	3200	5
Silver		(	400	1
₩ Sodium			238000	1
Thallium	U	(	400	1
Tin	U	<	20000	1
*Vanadius			12800	1
*Zinc			196000	1

Laboratory Name: ENVIRODYNE

Case No: 6

| Sample Number: XIOI |

# Organics Analysis Data Sheet (Page 2)

### Semivolatile Compounds

Concentration: MEDIUM

Date Extracted/Prepared: 3-31-87

Date Analyzed: 4-15-87

Conc/Dil Factor: /

Percent Moisture (decanted): 7.54

GPC Cleanup : NO

Sep. Funnel Extraction : YES NO (circle one) Contin. Liq.-Liq. Ext. : YES NO (circle one)

CAS No:		ugkg	CAS No:		ugkç
106-95-2	Phenol	21000 U	83-32 <del>-</del> 9	Acenaphthene	21000 U
111-44-4	bis-12-Chloroethyl)ether	21000 U	51-28-5	2,4-Dinitrophenol	100000 U
95-57-8	2-Chlorophenol	21000 U	100-02-7	4-Ni trophenol	100x30 U
541-73-1	1,3-Dichlorobenzene	21000 U	132-64-9	Dibenzofuran	21000 U
106-46-7	1,4-Dichlorobenzene	21000 U	121-14-2	2,4-Dinitrotoluene	21000 U
100-51-6	Benzyl Alcohol	21000 U	606-20-2	2,6-Dinitrotolume	21000 U
<b>95-5(−1</b>	1,2-Dichlorobenzene	21000 U	84-66-2	Diethyl phthalate	21000 U
<b>95-4</b> 8-7	2-Methylphenol	21000 U	7005-72-3	4-Chiorophenyl-phenyl ether	21000 U
39638-32-9	bis-(2-Chloroisopropyl)ether	21600 B	86-73-7	Fluorene	21000 U
106-44-5	4-Hethylphenol	21000 U	100-01-6	4-Mitroaniline	100000 U
1-16-153	Remain oscepiene prop <sub>i</sub> Lamana	zjane H	574 52 1	4.6 Dinitro 2-Heth, Iphenal	100%
67-72-1	Hexachloroethane	21000 U	<b>6</b> 6-30-6	M-nitrosodiphenylamine (1)	21000 U
<del>98-95-</del> 3	Ni trobenzene	21000 U	101-55-3	4-Bromophenyl-phenyl ether	21000 11
78-59-1	Isophorone	21000 B	118-74-1	Hexachi orobenzene	21000 U
88-75-5	2-Nitrophenol	21000 U	87-86-5	Pentachlorophenol	100000 B
105-67-9	2,4-Dimethylphenol	21066-18	85-01 <del>-8</del>	Phenanthrene	21000 U
65-85-0	Benzoic Acid	100000 U	120-12-7	Anthracene	21000 B
111-91-1	bis-(Chloroethoxy)Methane	21(00 U	84-74-2	Di-n-butyl phthalate	21000 U
120-83-2	2,4-Dichlorophenol	21000 U	206-44-0	Fluoranthene	21000 U
120-52-1	1,2,4-Trichlorobenzene	21006 U	129-00-0	Pyrene	21000 U
91-26-3	Naphthalene	21000 U	<b>8</b> 5-68-7	Butyl-benzyl-phthalate	21000 U
106-47 <del>-8</del>	4-Chioroaniline	21000 U	91 <del>-94</del> -1	3,3'-Dichlorobenzidine	43000 U
<b>87-68</b> -3	Hexachlor obutadiene	21000 U	56-55−3	Benzo (a) anthracene	21000 U
<b>5</b> 9-50-7	4-Chioro-3-methyiphenal	21000 U	117-81-7	bis-(2-Ethylhexyl)phthalate	4600 B)
91-57-6	2-Methylmaphthalene	21000 U	218-01-9	Chrysene	21000 8
77-47-4	Hexachlorocyclopentadiene	21000 U	117-84-0	Di-n-octyl phthalate	21000 U
88-66-2	2,4,6-Trichlorophenol	21000 U	<b>205-99-</b> 2	Benzo(b)fluoranthene	21000 U
95-95-4	2,4,5-Trichlorophenol	100000 U	207-08-9	Benzo(k)fluoranthene	21000 U
91-58-7	2-Chloronaphthalene	21000 U	50-32 <del>-8</del>	Benzolatpyrene	21000 8
BB-74 <b>-4</b>	2-Nitroaniline	100000 U	193-39-5	Indeno (1, 2, 3-cd) pyrene	21000 U
131-11-3	Dimethyl phtnalate	21060 U	53-70-3	Dibenzo(a,h)anthracene	21000 U
208-96-8	Acenapthylene	21900 11	191-24-2	Benzo ighi ) perylene	21006 U
<del>99-09-</del> 2	3-Nitroaniline	166006 U			

<sup>(1)-</sup>Cannot be separated from diphenylamine

Laboratory Name: ENVIRODING

Case Ho: 6

:	•	-	_		-	••	-	-		-	-	-	-	-	-	_	-	••	-	-		-	-	••	-		-	:
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ļ	-	-	-	-	•	-	-		-	-		-	-	-	-	•-	-		-		•-	~		_	•	_		;

## Organics Analysis Data Sheet (Fage 3)

## Pesticides & PCD s

Concentration: NEDIUM

Date Extracted: Prepared:

Date Analyzed:

Conc/Dil Factor: 1

Percent Hoisture (decanted): 7.54

GPC Cleanup : NO

Sep. Funnel Extraction: YES NO (circle one: Contin. Liq.-Liq. Ext. : 785 MG (circle one)

CAS No:		ugkg	
=======	*************	=====	=
31 <del>9-5</del> 4-5	Alpha-BC	136 d	
319-85-7	Beta-RE	136 U	
315-85-8	leita-BE	130 8	
58-89-9	Games-BAC (Landane)	130/0	
76-44-6	Hebbachton	130 B	
399-09-2	ALGEIO	iW U	
1024-57-3	Heptachior Epoxide	130 U	
957-98-8	Endosolian i	130 U	
60-57-1	Dieldrin	250 U	
72-55-7	4,4 -555	260 U	
72-20-8	Endrin	250 0	
33213-65-9	Endozulfan-II	250 U	
72-54-8	4,4 -000	260 G	
1051-07-8	Endozulian Sulfate	260 G	
50-25-3	4.4 -UUT	260 U	
72-43-5	Hethorychilor	13(n)	IJ
57454-77-5	Endrin ketone	26: 0	
57-74-9	<b>Unitercent</b>	1300	Ü
B001-35-2	Tox aphene	2000	Ü
12674-11-2	Argolar-1016	1500	Ü
111 4-25-1	Arcelor-1221	1300	ij
53467-21-9	Anoclor-1032	1300	ij
53467-21-9	Aracion-1242	13%	Ü
12572-27-6	Araclar-1248	1300	ü
11097-e9-1	Articles-1254	2500	Ü
1109-31-5	Wester-12ab	26.5	Ü

vi = volume of extract injected (bl) Wa = Weight of sample entracted (q) Vt = Splane of total extract (dir.

ેર = 10.000 હો

Fi = 2.0 01

₩ = = 1 Q

# ILLINDIS ENVIRONMENTAL PROTECTION AGENCY Contract Laboratory Services

	LAB NAME :	Envirodyne Engineers, Inc.		SAMPLE	NUMBER
	CASE # : 3	•		! ! X 1 O 1	
	J.132 W 7 2	ORGANICS ANALYSIS DATA SOIL SAMPLES Tentatively Identified C		1	
===	CAS		********	*******	ESTIMATED
	NUMBER	COMPOUND NAME	FRACTION	RT (min.)	CONC.
1 2	******	NO PEAKS FOR L.S.	BNA		
3 4 5					
6 7 8					
9 10 11					
12 13 14					
15 16 17					
18 19 20					
21 22 23					
24 25 26					
27 28 29					

30

# ILLINDIS ENVIRONMENTAL PROTECTION AGENCY Contract Laboratory Services

LAB

NAME: Envirodyne Engineers, Inc.

CASE # : 3132-00006

SAMPLE NUMBER
X101 1:20

# ORGANICS ANALYSIS DATA SHEET SOIL SAMPLES Tentatively Identified Compounds

===	22222222	######################################	22222222	*********	22222222
	CAS NUMBER	COMPOUND NAME	FRACTION	RT (min.)	ESTIMATED CONC. (ug/kg)
===	========		******	*******	22222222
1		Propanic acid, 2-methyl, - methyl ester	VDA	20.6	120
2		Silane, dimethoxydimethyl	VOA	21	237
-		Butanoic acid, methyl ester	VDA	21.8	443
3	623427				334
4		Unknown mixture of cmpds.	VOA	£4. J	337

## IEPA Contract Laboratory Service Chemical Analysis Form

SITE INVENTORY NUM REGION CENTRAL FIAT Allis North Ar	co. S	<u>angamon</u>	<u> 500</u>	8 MONITOR POINT NUMBER (See Instructions DATE COLLECTED 2	MBER X / D 2 19 - 27 27 23 12 47 8 7 34 D YZB
			K GROUND	SAMPLE (X) TIME CO 54 (24 HR	DLLECTED //:4
SAMPLING PURPOSE CO	-/_D-/_Y47 DDE   48	(se MON (se SA CODE	e Instru ITOR POI e Instru MPLE FIE	otter: SAMPLE ctions) 59 NT SAMPLED BY ctions) 60 011 LD FILTERED - INORGAN	HER (SPECIFY)
SAMPLE APPEARAN	ICE <u>Soi!</u>	_ = <u>i</u>	subs?	ance mixed in	
COLLECTOR COMME	ENTS <u>30</u>	day tu	navoun	d_lime	———— TO2
•••					T42
SPECIAL INSTRUCTION	IS TO LAB		<del></del>		
Ker, Page COLLECTED BY	T43 T45 INITIALS	TEPA DIVISION O	R CO.	TRANSPORTED BY	DIVISION OR CO.
COLLECTER BY	INITIALS	DIAIZION O			
COLLECTER BY	INITIALS	DIAIZION O	lance	TRANSPORTED BY	REPORTING LEVEL DIGITS L OF
TEST REQUESTED:  FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE	STORET NUMBER	DIVISION OF SUBST	lance	TRANSPORTED BY  Target Compound	List of Parameter
TEST REQUESTED:  FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE  DEPTH TO WATER (ft. below LS)	STORET NUMBER	DIVISION OF SUBST	PL OR	TRANSPORTED BY  Target Compound	REPORTING LEVEL DIGITS L OF TO OF
TEST REQUESTED:  FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE  DEPTH TO WATER (ft. below LS) ELEVATION OF GN SURFACE (ft. ref MS	STORET NUMBER  7 2 0 1 9 30 7 1 9 34	REMARKS SEE REINST. API	PL OR	TRANSPORTED BY  Target Compound  VALUE	REPORTING LEVEL DIGITS L OF TO OF L OF R DECIM
TEST REQUESTED:  FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE  DEPTH TO WATER (ft. below LS) ELEVATION OF GN SURFACE (ft. ref MS) TOTAL WELL DEPTH (ft. below LS)	STORET NUMBER  7 2 0 1 9 3 1 7 2 0 0 8	REMARKS SEE REINST. API	PL OR	TRANSPORTED BY  Target Compound  VALUE	REPORTING LEVEL DIGITS L or TO OF L or R DECIM
TEST REQUESTED:  TEST REQUESTED:  CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE  DEPTH TO WATER (ft. below LS)  ELEVATION OF GN SURFACE (ft. ref MS  TOTAL WELL DEPTH (ft. below LS)  ALKALINITY TOTAL (mg/) as CaCO3)-FTO	STORET NUMBER  7 2 0 1 9 3 1 1 2 0 0 8 6 1 1 0 0 4 3 1	REMARKS SEE REINST. API	PL OR	TRANSPORTED BY  Target Compound  VALUE	REPORTING LEVEL DIGITS L OF TO OF L OF R DECIM
TEST REQUESTED:  TEST REQUESTED:  CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE  DEPTH TO WATER (ft. below LS)  ELEVATION OF GN SURFACE (ft. ref MS  TOTAL WELL DEPTH (ft. below LS)  ALKALINITY TOTAL (mg/) as CaCO3)-FTO	STORET NUMBER  7 2 0 1 9 3 1 7 2 0 0 8 eld 0 0 4 3 1 0 0 9 0	REMARKS SEE REINST. API	PL OR	TRANSPORTED BY  Target Compound  VALUE	REPORTING LEVEL DIGITS L or TO OF L or R DECIM
TEST REQUESTED:  FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE  DEPTH TO WATER (ft. below LS) ELEVATION OF GM SURFACE (ft. ref MS TOTAL WELL DEPTH (ft. below LS) ALKALINITY TOTAL (mg/l as CaCO3)-Field REDOX POTENTIAL (millivolt)-Field	STORET NUMBER  7 2 0 1 9 3 1 1 2 0 0 8 6 1 1 0 0 4 3 1	REMARKS SEE REINST. API	PL OR	TRANSPORTED BY  Target Compound  VALUE	REPORTING LEVEL DIGITS L or TO OF L or R DECIM
TEST REQUESTED:  FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE  DEPTH TO WATER (ft. below LS) ELEVATION OF GM SURFACE (ft. ref MS TOTAL WELL DEPTH (ft. below LS) ALKALINITY TOTAL (mg/l as CaCO3)-Fir REDOX POTENTIAL (millivolt)-Field pH (units)-Field	STORET NUMBER  7 2 0 1 9 30 1 7 1 9 9 3 1 1 0 0 0 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0	REMARKS SEE REINST. API	PL OR	TRANSPORTED BY  Target Compound  VALUE	REPORTING LEVEL DIGITS L or TO OF L or R DECIM

# IEPA ANALYSIS PROGRAM Report of VOA Results

Site ID : X102 1:100 Sample # : 87001448 Moisture : 24.9

PARAMETER	REMARKS (see inst.)	VALUE (ug/kg)	DILUTION FACTOR
		2222222	822222
Chloromethane	U	1300	100
Bromomethane	U	1300	100
Vinyl Chloride	Ü	1300	100
Chloroethane	U	1300	100
Methylene Chloride	B	690	100
Acetone	В	120	100
Carbon Disulfide	U	670	100
1,1-Dichloroethene	U	670	100
1,1-Dichloroethane	U	670	100
t-1,2-Dichloroethene	ប	670	100
1,2-Dichloropropane	U	670	100
Chloroform	U	670	100
1,2-Dichloroethane	U .	670	100
2-Butanone	IJ	1300	100
1,1,1-Trichloroethane	U	670	100
Carbon Tetrachloride	U	670	100
Vinyl Acetate	U	1300	100
Dichlorobromomethane	U	670	100
c-1,3-Dichloropropene	U	670	100
* Trichloroethene		20000	100
Benzene	U	670	100
Chlorodibromomethane	U	670	100
1,1,2-Trichloroethane	U	670	100
t-1,3-Dichloropropene	IJ	670	100
2-Chloroethyl Vinyl Ether	U	1300	100
Bromoform	U	670	100
2-Hexanone	U	1300	100
4-Methy1-2-pentanone	U	1300	100
1,1,2,2-Tetrachloroethane	U	670	100
Tetrachloroethene	IJ	670	100
* Toluene		190	100
Chlorobenzene		4200	100
Ethylbenzene Ethylbenzene	U	670	100
Styrene	U	670	100
*Total Xylenes		7200	100
******************	2242222442	2222222	2222232

Page: 1

Date: 3-31-67

# IEPA ANALYSIS PROGRAM Report of INORGANIC Results Soil Samples

Site ID: X102 Sample #: 87001448

PARQUETER	REMARKS (see inst.)	OR )	WILLE (ug/kg)	DILUTION FACTOR
	-	222	******	-
* Aluminum			8460000	1
Antimony	UR	(	8000	1
* Arsenic			13100	5
* Barium			165000	1
Beryllium	U	(	1000	1
* Cadmium			1200	1
*Calcium			83700000	10
* Chronium			85400	1
Cobalt	U	(	10000	1
* Copper			54200	1
*Iron			54900000	1
* Lead			289000	1
* Magnesium			6230000	1
* Manganese			1560000	1
Mercury		(	200	1
* Potassium			1346000	1
* Nickel			40200	1
Selenium	URE	(	3200	5
Silver	U	(	400	1
* Sodium			258000	1
*Thallium			500	1
Tin	U	(	20000	1
-∦Vanadi us			34600	1
*Zinc			130000	1
*****				

Laboratory Name: ENVIRODINE

Lase No: 6

| Sample Number: X102

## Organics Analysis Data Sheet (Page 2)

## Semivolatile Compounds

Concentration: MEDIUM

Date Extracted/Prepared: 3-31-87

Date Analyzed: 4-15-87

Conc/Dil Factor: /

Percent Moisture (decanted): 24.91

GPC Cleanup : NO

Sep. Funnel Extraction: YES NO (circle one) Contin. Liq.-Liq. Ext.: YES NO (circle one)

CAS No:		<b>ug</b> kg	CAS No:		ugkg
108-95-2	Fheriol	26000 U	83-32-9	Acenaphthene	26000 U
111-44-4	bis-(2-Chloroethyl)ether	26000 ti	51-28-5	2.4-Dinitrophenol	130000 U
<b>95-57-8</b>	2-Chlorophenol	26000 U	100-02-7	4-Ni trophenal	130000 U
541-73-1	1,3-Dichlorobenzene	26000 U	132 <del>-64-9</del>	Dibenzofuran	26000 U
166-46-7	1,4-bichlorobenzene	26000 U	121-14-2	2,4-Dinitrotoluene	26000 U
100-51-6	Benzyl Altohol	26000 U	<i>6</i> 06-20−2	2,6-Dinitrotolume	26000 U
95-5(-1	1,2-Dichlorobenzene	26000 U	84~66-2	Diethyl phthalate	26000 U
<b>95-4</b> 9-7	2-Nethylphenol	26000 8	7005-72-3	4-Chlorophenyl-phenyl ether	26000 U
39638-32-9	bis-(2-Diloroisopropyl)ether	26000 U	<b>8</b> 6-73-7	Fluorene	26000 U
106-44-5	4-Methylphenal	26000 U	100-01-6	4-Mitroaniline	130000 8
£21-p4-7	H-nitroso-Di-n-propylamine	26000 U	534 52 1	4,6-Dinitro-2-Nethylphenol	130000 U
67-72-1	Herach) proethane	26000 U	86-3(+6	N-nitrosodiphenylamine (1)	26000 U
<del>98-95-</del> 3	Nitrobenzene	25000 U	101-55-3	4-Bromopher, 1-phenyl ether	2600) U
78-59-1	Isapharane	25000 8	118-74-1	Hexachlorobenzene	26000 U
88-75-5	2-Ni traphenol	26000 U	87-86-5	Pentachlorophenol	130600 U
105-67-9	2.4-biaethylphenol	26000 U	B5-01-8	Phenanthrene	26000 U
65-85-û	Benzoic Acid	130000 U	126-12-7	Anthracene	25000 U
111-91-1	bis-(Chloroethoxy) Methane	26/90 U	84-74-2	Di-n-butyl phthalate	26000 B
124-83-2	2,4-Dichlorophenol	26000 U	206-44-0	Fluoranthene	1406 J
120-82-1	1,2,4-Trichlorobenzene	26000 U	129-00-0	Pyrene	1100 J
91-26-3	Naphthalene	26000 U	<b>85-6</b> 8-7	Butyi-benzyi-phthalate	26000 U
106-47-8	4-Chloroaniline	26000 U	91-94-1	3,3'-Dichlorobenzidine	53000 U
<b>87-68-</b> 3	Hexachlorobutadiene	26000 U	<b>56-55-</b> 3	Benzo (a) anthracene	26000 U
59-50-7	4-Chloro-3-methylphenol	26000 U	117-81-7	bis-(2-Ethylhexyl)phthalate	2400 BJ
91-57-6	2-Methylnaphthalene	26000 U	218-01-9	Chrysene	1200 J
77-47-4	Hexachlorocyclopentadiene	26000 B	117- <b>64-</b> 0	Di-m-octyl phthalate	<b>26</b> 000 U
86-06-2	2,4,6-Trichlorophenol	25006 U	20 <del>5-9</del> 9-2	Benzoib) fluoranthene	900 J
95-95-4	2,4,5-Trichlorophenol	130000 U	207 <b>-06-9</b>	Benzo(k) fluoranthene	750 J
91-5 <del>5</del> -7	2-Chloronaphthalene	26000 U	50-32 <del>-8</del>	Benzo (a) pyrene	26000 U
B8-74-4	2-Nutroaniline	130000 U	193-39-5	Indeno(1,2,3-cd)pyrene	26000 U
131-11-3	Directive phthalate	26000 U	53-70-3	Dibenzo (a.h) anthracene	260% U
208-96-8	Acenapthylene	26000 U	191-24-2	Benza (ghi ) perylene	26000 U
79-09-2	3-Nitroaniline	130000 U		<i>y</i>	

<sup>(1)-</sup>Cannot be separated from diphenylamine

Laboratory Name: ENVIRODYNE Case No:

: Sample Number: X102 | .......

## Organics Analysis Data Sheet (Page 3)

## Pesticides & PCB s

Concentration: hEfflut Date Extracted/Prepared: Date Hnalyzed:

Concybil Factor: 1

Percent Moisture (decanted): 24.71

GPC Cleanup : NO

Sep. Funnel Extraction: (ES NO (circle one)

Contin. Lig.-Lig. Ext. : YES No (circle one)

£45 46:		ugkg	ì
222222	£ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	=====	=
319 <b>~84</b> ~6	Alicha-BHC	ü Gai	
	Beta-BIC	laŭ li	
315-86-6	Delta-MC	lov u	
58-87-9	Sames-ball (Lindane)	160 U	
75-44-6	Her tachlor	150 11	
309-03-2	Algrin	150 Ü	
1024 57-3	Heptachlor Epoxide	160 U	
959-93-8	Endasulfan i	150 0	
6(-57-1	Dieldrin	326.8	
72-55-9	4,4°-00E	529 U	
72-20-6	Endrin	320 U	
33213-65-9	Endosulfan-II	320 B	
72-54-8	4,4 -555	320 U	
1001-07 <b>-9</b>	Endosulfan Sulfate	320 U	
50-17-0	A,A -DDI	520 B	
72-45-5	hetho: ychlor	1500	Ü
53484-39-5	Endrin ketone	320 U	
57-74-4	Chilordena	iak	Ü
8-1-1-2	To: aphene	3200	Į,
12074-11-2	Aroclor-1016	1600	Ü
11104-28-2	Arcolor-1221	ie 💎	Ü
534c7-11-7	Arecis:-1232	18(%)	ij
53469 21-9	ároctor-1242	laiu	Ç
	tractor-1248	16%	Ü
	#rec) or -1254	3500	Ü
11076-81-5	Arozlon-1260	52:37	Ü

%1 = Values of extract injected (ul) Wa = weight of sample a tracted to: Vt - Volume of total a crast (ui)

Wa = 1 0

Vt = 10,000 00

Vi = 2. 1 a.

# ILLINDIS ENVIRONMENTAL PROTECTION AGENCY Contract Laboratory Services

1	no
L	_MD

NAME : Envirodyne Engineers, Inc.

SAMPLE NUMBER

CASE # : 3132-00006

1X102

# ORGANICS ANALYSIS DATA SHEET SOIL SAMPLES Tentatively Identified Compounds

			******	******	28222222
	CAS				ESTIMATED
	NUMBER	COMPOUND NAME	FRACTION	RT	CONC.
	11011211			(min.)	(ug/kg)
===	r=z#22222	20101201212777777828282828283777252	******		======================================
1		Branched Hydrocarbon	BNA	6.45	16981
2		Branched Hydrocarbon	BNA	6.60	15589
3		Unknown	BNA	6.85	17258
4		Unknown	BNA	7.16	110428
5		Hydrocarbon	BNA	7.95	70119
6		Branched Hydrocarbon	BNA	8.43	36596
7		Cycloalkane	BNA	8.55	28706
ė		Branched Hydrocarbon	BNA	8.76	18577
9		Hydrocarbon	BNA	10.02	23507
10		Hydrocarbon	BNA		10213
11		Bis Dimethyl Ethyl Methyl Phenol	BNA		14267
12		Cycloalkane	BNA	19 <b>. 9</b> 0	14267
13		-,			
14					
15					
16					
17				•	
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232	#652552##	222222222222222222222222222222222222222	E=========	£#\$#####	

# ILLINDIS ENVIRONMENTAL PROTECTION AGENCY Contract Laboratory Services

LAB

NAME: Envirodyne Engineers, Inc.

1 X102 1:100

SAMPLE NUMBER

CASE # : 3132-00006

# ORGANICS ANALYSIS DATA SHEET SDIL SAMPLES Tentatively Identified Compounds

===	*******	**************************	******		*******
	CAS NUMBER	COMPOUND NAME	FRACTION	RT (min.)	ESTIMATED CONC. (ug/kg)
222	*******	************	22222222		
1	1112396	Silane, dimethoxydimethyl	VOA	20.6	1020
2	623427	Butanoic acid, methyl ester	VOA	21.8	2640
3		2-Hexanone 1.1.1 Trifuoro &	VOA	24 <b>.</b> 65	2050
		another Unknown cmpd.;possibly an	VOA		
		ether compound	VDA		
4		Unknown Alkyne	VDA	28.08	1030
5		Unknown Cyclohexane	VOA	31.97	B7 <b>8</b> 0
6		Unknown Alkyne	VOA	<b>32.45</b>	10600
. 7		Unknown Cyclohexane	VOA	36.63	4670
8		Cyclic Alkane	VOA	39.03	<b>408</b> 0
9		Cyclic Hexane Isomer	VOA	41.02	26500
10		Cyclic Hydrocarbon	VDA	45 <b>.</b> 57	20800

# IFPA Contract Laboratory Service Chemical Analysis Form

	America Inc	DANGA MO	<u></u>		DATE	WLLECH	23H	<u>। ज</u> ु <b>क</b> ा	7 7 7 8 7 7 8 8 9 9 9 9 9 9 9 9 9 9 9 9
DATE RECEIVED  SAMPLING PURPOSE ( (see Instructions) TIME CARD PROGRAM CODE  49	7 - 7 - 74 CODE 48		MABLE 1 (see In: DNITOR (see In: SAMPLE	TO COL Struct POINT Struct	LECT SA ions) SAMPLE	54 (:24 MPLE 59	OTHER	CK) 55H	
SAMPLE APPEARA		_ <u>oily</u> , ;							_
COLLECTOR COM	IENTS 302	day tu	marou	ud-	time.		<del></del>		TO2  
					1100				_
TEST REQUESTED	T43 T45 INITIALS : Hozardou	TEPA DIVISION S Subst				pound /		Pavame	
		DIVISION	REPL		t Com,			Pavame	
TEST REQUESTED  FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND	STORET NUMBER	REMARKS SEE INST.	REPL APP	Tange OR	t Com	pound L	ist of	REPO LE DIGITS TO L or R	RTING YEL L OF DEC
FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE	STORET NUMBER	REMARKS	REPL APP	Tange GR	t Com	pound L		REPO LE DIGITS	RTING VEL L O
FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE  DEPTH TO WATER (ft. below LS)	STORET NUMBER	REMARKS SEE INST.	REPL APP	Tange OR	t Com	pound L	ist of	REPO LE DIGITS TO L or R	RTING VEL L OF DEC
FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE  DEPTH TO WATER (ft. below LS) ELEVATION OF GN SURFACE (ft. ref M	STORET NUMBER  7 2 0 1 9 30 5L1 7 1 9 9 3 7 2 0 0 8	REMARKS SEE INST.	REPL APP	Tange OR	t Com	pound L	ist of	REPO LE DIGITS TO L or R	RTING VEL L OF DEC
FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE  DEPTH TO WATER (ft. below LS) ELEVATION OF GN SURFACE (ft. ref M	STORET NUMBER  7 2 0 1 9 30 5L1 7 1 9 9 3 7 2 0 0 8	REMARKS SEE INST.	REPL APP	Tange OR	t Com	pound L	ist of	REPO LE DIGITS TO L or R	RTING VEL L OF DEC
FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE  DEPTH TO WATER (ft. below LS) ELEVATION OF GW SURFACE (ft. ref M TOTAL WELL DEPTH (ft. below LS) ALKALINITY TOTAL (mg/1 as CaCO3)-F	STORET NUMBER  7 2 0 1 9 30 511 7 1 9 9 3 7 2 0 0 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	REMARKS SEE INST.	REPL APP	Tange OR	t Com	pound L	ist of	REPO LE DIGITS TO L or R	RTING VEL L OF DEC
FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE  DEPTH TO MATER (ft. below LS) ELEVATION OF GN SURFACE (ft. ref M TOTAL WELL DEPTH (ft. below LS) ALKALINITY TOTAL (mg/1 as CaCO3) + REDOX POTENTIAL (millivolt) + field	STORET NUMBER  7 2 0 1 9 3 3 4 3 1	REMARKS SEE INST.	REPL APP	Tange OR	t Com	pound L	ist of	REPO LE DIGITS TO L or R	RTING VEL L OF DEC
FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE  DEPTH TO WATER (ft. below LS) ELEVATION OF GN SURFACE (ft. ref M TOTAL WELL DEPTH (ft. below LS) ALKALINITY TOTAL (mg/l as CaCO3) # REDOX POTENTIAL (millivolt) #field pH (units) #field	STORET NUMBER  7 2 0 1 9 30 7 34 31 0 0 0 9 0 0 9 0 0 0 0 0 0 0 0 0 0 0 0	REMARKS SEE INST.	REPL APP	Tange OR	t Com	pound L	ist of	REPO LE DIGITS TO L or R	RTING VEL L OF DEC
FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE  DEPTH TO WATER (ft. below LS) ELEVATION OF GN SURFACE (ft. ref M TOTAL WELL DEPTH (ft. below LS) ALKALINITY TOTAL (mg/1 as CaCO3) F REDOX POTENTIAL (millivolt) Field  PH (units) Field  SPEC CONDUCTANCE (umhos) Field	STORET NUMBER  7 2 0 1 9 3 4 5 1 7 2 9 0 8 1 1 1 0 0 0 9 0 0 0 0 0 0 0 0 0 0 0 0 0	REMARKS SEE INST.	REPL APP	Tange OR	t Com	pound L	ist of	REPO LE DIGITS TO L or R	RTING VEL L OF DEC

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### IEPA ANALYSIS PROGRAM Report of VOA Results

Site ID : X103 Sample # : 87001449 Moisture : 17.4

PARAMETER	REMARKS (see inst.)	VALUE (ug/kg)	DILUTION FACTOR
Chloromethane	U	24	2
Bromomethane	U	24	2
Vinyl Chloride	U	24	2
Chloroethane	U	24	2
Methylene Chloride	B	280	2
Acetone	8	80	2
Carbon Disulfide	U	12	2
1,1-Dichloroethene	U	12	2
1,1-Dichloroethane	U	12	2
t-1,2-Dichloroethene	U	12	2
1,2-Dichloropropane	บ	12	2
Chloroform	U	12	2
1,2-Dichloroethane	U	12	2
2-Butanone	U	24	2
1,1,1-Trichloroethane	U	12	2
Carbon Tetrachloride	U	12	2
Vinyl Acetate	U	24	2
Dichlorobromomethane	U	12	2
c-1,3-Dichloropropene	U	12	2
Trichloroethene	U	12	2
Benzene	U	12	2
Chlorodibromomethane	U	12	2
1,1,2-Trichloroethane	U	12	2
t-1,3-Dichloropropene	U	12	2
2-Chloroethyl Vinyl Ether	U	24	2
Bromoform	U	12	2
2 <del>-Hexanone</del>	บ	24	2
4-Methyl-2-pentanone	IJ	24	2
1,1,2,2-Tetrachloroethane	U	12	2
Tetrachloroethene	U	12	2
Toluene	U	12	2
Chlorobenzene	U	12	2
Ethylbenzene	Ų	12	2
Styrene	U	12	2
Total Xylenes	U	36	2

Date: 4-29-30

Page: 1

# IEPA ANALYSIS PROGRAM Report of INDRGANIC Results Soil Samples

Site ID: X103 Sample # : B7001449

		(		
	REMARKS	OR	VALUE	DILUTION
PARAMETER	(see inst.)	)	(ug/kg)	FACTOR
***************************************		-	***************************************	********
₩Aluminum			3520000	1
Antimony	UR	<	5000	1
*Arsenic			13800	5
→ Barium			114000	1
Beryllium		(	1000	1
Cadmium		(	1000	1
*Calcius			105000000	10
* Chronium			107000	1
* Cobalt			12200	1
* Copper			55400	1
* Iron			30900000	1
* Lead			331000	1
*Magnesium			11400000	1
* Hanganese			1380000	1
Mercury	IJ	(	200	1
* Potassium			668000	1
*Nickel			31600	1
Selenium	URE	(	3200	5
*Silver			450	1
<b>¾</b> Sodium			406000	1
*Thallium			470	1
Tin	υ	(	20000	1
<b>∜Vanadium</b>			20200	i
* Zinc			267000	1
	*********	-	*****	******

Laboratory Name: ENVIRODYNE

Case No: 6

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: Sample Numbe	r: X103

### Organics Analyzis Data Sheet (Page 2)

#### Semivolatile Compounds

Concentration: MEDIUM

Date Extracted/Prepared: 3-31-87

Date Analyzed: 4-15-87

Conc/Dil Factor: /

Percent Moisture (decanted): 17.43

GPC Cleanup : NO

Sep. Funnel Extraction : YES NO (circle one) Contin. Liq.-Liq. Ext. : YES NO (circle one)

CAS No:		ugkg	CAS No:	ugkg	
108-95-2	Pheno)	24000 U	83-32-9	Acenaphthene	24000 U
111-44-4	bis-12-Chloroethyl)ether	24000 U	51-28-5	2,4-Dinitrophenol	120006
95-57 <del>-</del> 8	2-Chlorophenol	24000 U	100-02-7	4-Ni trophenol	120000
541-73-1	1,3-Dichlorobenzene	24000 U	132-64-9	Dibenzofuran	24000 U
106-46-7	1,4-Dichlorobenzene	24000 U	121-14-2	2,4-Dinitrotoluene	24000 U
100-51-6	Benzyl Alcohol	24000 U	606-20-2	2,6-Dinitrataluene	24000 U
95-50-1	1,2-Dichlorobenzene	24000 U	B4-66-2	Diethyl phthalate	24000 U
95-48-7	2-Methylphenoi	24000 U	7005-72-3	4-Chlorophenyl-phenyl ether	24000 U
39638-32 <del>-9</del>	bis-(2-Chloroisopropyl)ether	24000 ti	86-73-7	Fluorene	24000 ti
106-44-5	4-Methylphenol	24006 B	100-01-6	4-Nitroaniline	<b>1200</b> 00 (
- ان-ائن	Unities di repropilmine	24 mer 13	574 52 1	456 Dinitro 2 Methylphenol	120000
67-72-1	Hexachloroethane	24000 U	86-30-6	N-nitrosodiphenylamine (1)	24000 U
<del>98-95-</del> 3	Ni trobenzene	24600 U	101-55-3	4-Brosophenyl-phenyl ether	24000 U
78-57-1	Isophorone	24000 U	118-74-1	Hexachlorobenzene	24000 U
88-75-5	2-Ni trophenol	24000 U	87 <b>-8</b> 6-5	Pentachlorophenol	120000
105-67 <del>-9</del>	2,4-Dimethylphenol	24000 U	<b>85-</b> 01 <b>-8</b>	Phenanthrene	24000 U
5-65-∂	Benzoic Acid	120000 U	120-12-7	Anthracene	24000 U
111-91-1	bis-(Chloroethoxy)Hethane	24000 U	84-74-2	Di-n-butyl phthalate	<b>24</b> 000 U
120-B3-2	2,4-Dichlorophenol	24000 U	206-44-0	Fluoranthene	1165-3
20-82-1	1,2,4-Trichlorobenzene	24000 U	129-00-0	Pyrene	24000 U
1-26-3	Naphthalene	24000 U	<b>85-68</b> -7	But-1-benzyl-phthalate	24060 U
66-17-8	4-Chloroaniline	24000 U	91-94-1	3,3 -Dichlarabenzidine	<b>48</b> 000 B
17 <b>-66-3</b>	Hexachi orobutadi ene	24000 U	56-55-3	Benzo (a) anthracene	24900 D
19-5ù-7	4-Chloro-3-methylphenol	24000 U	117-81-7	bis-(2-Ethylhexyl)phthalate	3900 81
1-57-6	2-Methylnaphtnalene	24000 U	218-01-9	Chrysene	24000 U
7-47-4	Hexachlorocyclopentagiene	24000 U	117-84-0	Di-n-octyl phthalate	<b>24</b> 006 U
<del>2-66-</del> 2	2,4,6-Trichlorophenol	24000 U	205-99-2	Benzo(b) fluoranthene	24000 U
5-95-4	2,4,5-Trichlorophenal	120000 U	<b>2</b> 07 <b>-0</b> 9-9	Benzo(k) fluorantnene	24060 U
1 <b>-56</b> -7	2-Chiloronaphthalene	24600 U	50-32-8	Benzolarpyrene	24000 U
B-74 <b>-</b> 4	2-Nitroaniline	120000 U	153-39-5	Indeno(1,2,3-cd)pyrene	24000 U
31-11-3	Directly I phthalate	24000 U	53-70-3	Dibenzo (a.h) anthracene	24000 U
	Acenapthylene	24000 U	191-24-2	Benzo (ghi i perylene	24000 8
9-69-2	3-Nitroaniline	120000 U		• •	

<sup>(1)-</sup>Cannot be separated from diphenylamine

Laboratory Name: ENVIRODYNE Case No: 6

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#### Organics Analysis Data Sheet (Page 3)

#### Pesticides & PCD s

Concentration: MEDIUM Date Extracted/Prepared: Date Analyzed:

Come/Dil Factor: 1

fercent Moisture (decanted): 17.4

OPS Cleanup: NO

Sep. Funnel Extraction: NES no scircle one;

Contin. Liq.-Liq. Ext. : YES NO (cardle one)

CAS No:		ugkç	}
222222	22222222222222	====	Œ
945 P3 .	65.3 - 94P	(P: 11	
319-64-6	Alpha-iHC	150 1	
314-85-7	Bets-Bil	150 U	
519-86-8	beita-BC	150 U	
56-87-9	Gamma-SHC (Lindane)	150 B	
76-44-5	Heptachlor	150 B	
309-00-2	Aldrin	150 b	
1024-57-3	Heptachior Epoxide	15. U	
959~95-B	Endosultan 1	156 C	
6:-57-1	Dieldrin	24./ U	
72-55-9	4,4 -bi£	žie ü	
72-20-8	Endrin	270 0	
33213-65-6	Endosultan-Il	27	
72-54-5	4.4*-000	250 G	
1031-01-8	Encosuitan Sulfate	290 0	
56-24-3	4,4 -DJT	290 G	
72-43-5	Metha-yahlar	1500	U
53444-70-5	Endrin Fetone	290 B	
57-74-7	Chiordane	1500	Ų
8001-35-2	To aphene	29:55	ز
12674-11-2	Arotion-101a	150	ŗ.
11164-78-2	Aroclor-1221	15.7	
53467-21-7	eroclar-1232	1500	¥
50467-21-7	Arocler-1240	1500	Ü
12671-29	Amoction-1243	1500	ü
11/22-1	Arocler-1254	25(6)	Ü
11:95-82-5	Another - 1267	Bx	Ü

V<sub>i</sub> = volume of extract injected (al) Wa = Weight of sample extracted agr. Wt = wright of total entract (ul)

ks = 1 q

7t = 1 4,600 ol

Vi.= 2.0 ci

### ILLINOIS ENVIRONMENTAL PROTECTION AGENCY Contract Laboratory Services

LAB				
NAME	1	Envirodyne	Engineers,	Inc.

1X103

I SAMPLE NUMBER

CASE # : 3132-00006

## ORGANICS ANALYSIS DATA SHEET SOIL SAMPLES Tentatively Identified Compounds

===	######################################	************	222222222	*****	3 32242=22 <b>2</b> 2
	CAS				ESTIMATED
	NUMBER	COMPOUND NAME	FRACTION	RT	CONC.
				(min.)	(ug/kg)
222	22222222	*************************	========	########	
1		Unknown	BNA	B. 39	7154
5		Cyclolkane	BNA	19.84	47398
3		Bis Dimethyl Ethyl Methyl Phenol	BNA	20.57	7776
4		Unsaturated Hydrocarbon	BNA	23.21	24319
5		Unknown	BNA	36.51	18683
6		Unknown	BNA	38.75	130019
7		Unknown	BNA	38.84	67584
8		Unknown	BNA	39.32	9193
9		Unknown	BNA	39.57	23774
10					
11					
12					
13					
14					
15					•
16					
17					
18					
19					•
20					
21					
25					•
23					
24					
25					
26					
27					
28					
29					
30					
###	#=======	*********************	22555555	*********	222222222

#### IEPA Contract Laboratory Service Chemical Analysis Form

	REGION CENTRAL FIAT Allis North FAC	America Inc ILITY NAME	-	<u> </u>			ITE COL	LECTED TIME	Z3M COLLE	1241	2 3 2 3
	DATE RECEIVED  424 SAMPLING PURPOSE ( (see Instructions) TIME CARD PROGRAM CODE  49	) 48 	T CODE	(see ) MONIT( (see ) SAMPL	instru )R POI instru £ FIE	etions NT SAM ections LD FIL	SAMPLI ) PLED B' ) TERED	59 7 60 (	THER	(SPECIF	
	SAMPLE APPEARA	unce <u>Soi</u>	<u>L-òib</u>	<u>y su</u>	bstan	<u>-ce) r</u>	nixed	in_			_
	COLLECTOR COM	ENTS 30 0	day tu	<u> </u>	ound	time	 				T02
•				<del></del>						- <del></del>	<b>T42</b>
	SPECIAL INSTRUCTION	ONS TO LAB									
	COLLEGAED BY	TAS TAS	DIVISIO	N OR C	<b>v.</b>	TRAN	SPORTEL	BY	DIA	IZION O	R CO.
											_
CONSTITUEN	COLLEGIED BY							oowd		REP L DIGITS	ORTING EVEL L OF OF
CONSTITUER REQUIRED	TEST REQUESTED  MEASUREMENTS  HT DESCRIPTION AND	STORET NUMBER	REMARKS SEE INST.	REPL APP	or or	arget	Com	oowd	List	REP L DIGITS TO L or R	ORTING EVEL L OF DECT
CONSTITUENT REQUIRED	TEST REQUESTED  MEASUREMENTS HT DESCRIPTION AND UNIT OF MEASURE	STORET NUMBER  7 2 0 1 9 30 - 34	R DIARKS	n <u>stand</u> REPL	c Ta		Com	oowd		REP L DIGITS	ORTING EVEL L OF OF
CONSTITUER REQUIRED  DEPTH TO W	TEST REQUESTED  MEASUREMENTS AT DESCRIPTION AND UNIT OF MEASURE	STORET NUMBER	REMARKS SEE INST.	REPL APP	or or	arget	Com	oowd	List	REP L DIGITS TO L or R	ORTING EVEL L OF DECIV
CONSTITUENT REQUIRED  DEPTH TO M  ELEVATION  TOTAL MELL	TEST REQUESTED  MEASUREMENTS AT DESCRIPTION AND UNIT OF MEASURE  MATER (ft. below LS)  OF GN SURFACE (ft. ref M	STORET NUMBER  7 2 0 1 9 30 511 7 1 9 9 3 7 2 0 0 8	REMARKS SEE INST.	REPL APP	or or	arget	Com	oowd	List	REP L DIGITS TO L or R	ORTING EVEL L OF DECIV
DEPTH TO WELL	TEST REQUESTED  MEASUREMENTS NT DESCRIPTION AND UNIT OF MEASURE  MATER (ft. below LS)  OF GN SURFACE (ft. ref M.	STORET NUMBER  7 2 0 1 9 30 511 7 1 9 9 3 7 2 0 0 8	REMARKS SEE INST.	REPL APP	or or	arget	Com	oowd	List	REP L DIGITS TO L or R	ORTING EVEL L OF DECI
DEPTH TO WELL	MEASUREMENTS NT DESCRIPTION AND UNIT OF MEASURE  MATER (ft. below LS)  OF GN SURFACE (ft. ref M. DEPTH (ft. below LS)  TOTAL (mg/l as CaCO3) +F	STORET NUMBER  7 2 0 1 9 30 511 7 1 9 9 3 7 2 0 0 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	REMARKS SEE INST.	REPL APP	or or	arget	Com	oowd	List	REP L DIGITS TO L or R	ORTING EVEL L OF DECIV
DEPTH TO WELL ALKALINITY REDOX POTE	MEASUREMENTS NT DESCRIPTION AND UNIT OF MEASURE  MATER (ft. below LS)  OF GN SURFACE (ft. ref M. DEPTH (ft. below LS)  TOTAL (mg/l as CaCO3) +F	STORET NUMBER  7 2 0 1 9 30 7 2 0 0 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	REPLACES SEE INST.  35	REPL APP	or or	arget	Com	oowd	List	REP L DIGITS TO L or R	ORTING EVEL L OF DECI
DEPTH TO MELEVATION TOTAL WELL ALKALINITY REDOX POTE PH (units)	TEST REQUESTED  MEASUREMENTS AT DESCRIPTION AND UNIT OF MEASURE  MATER (ft. below LS)  OF GN SURFACE (ft. ref M. DEPTH (ft. below LS)  TOTAL (mg/l as CacO3) = ENTIAL (millivolt) = Field	STORET NUMBER  7 2 0 1 9 30 7 2 0 0 8 1610 0 0 4 3 1 0 0 0 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	REPLACES SEE INST.  35	REPL APP	or or	arget	Com	oowd	List	REP L DIGITS TO L or R	ORTING EVEL L OF DECIV

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### IEPA ANALYSIS PROGRAM Report of VOA Results

Site ID : X104 Sample # : 87001450 Moisture : 17.3

PARAMETER	REMARKS (see inst.)	VALUE (ug/kg)	DILUTION FACTOR
Chloromethane	ប	12	1
Bromomethane	U	12	1
Vinyl Chloride	, <b>u</b>	12	1
Chloroethane	ប	12	1
Methylene Chloride	B	44	1
Acetone	В	18	1
Carbon Disulfide	U	6	1
1,1-Dichloroethene	U	6	1
1,1-Dichloroethane	U	6	1
t-1,2-Dichloroethene	U	6	1
1,2-Dichloropropane	U	6	1
Chloroform	U	6	1
1,2-Dichloroethane	U	6	1
2-Butanone	U	12	1
1,1,1-Trichloroethane	U	6	1
Carbon Tetrachloride	U	6	1
Vinyl Acetate	U	12	1
Dichlorobromomethane	บ	6	1
c-1,3-Dichloropropene	U	6	1
Trichloroethene	U	6	1
Benzene	U	6	1
Chlorodibromomethane	ีย	6	1
1,1,2-Trichloroethane	Ü	6	1
t-1,3-Dichloropropene	U	6	1
2-Chloroethyl Vinyl Ether	υ	12	1
Bromoform	U	6	1
2-Hexanone	U	12	1
4-Methyl-2-pentanone	U	12	1
1,1,2,2-Tetrachloroethane	U	6	1
Tetrachloroethene	U	6	1
Toluene	U	6	1
Chlorobenzene	U	6	1
Ethylbenzene	U	6	1
Styrene	U	6	1
Total Xylenes	U	18	1

### IEPA ANALYSIS PROGRAM Report of VOA Results

Site ID : X104 RE Sample # : 87001450 Moisture : 17.3

•	REMARKS	VALUE	DILUTION
PARAMETER	(see inst.)	(ug/kg)	FACTOR
~===±==4#£2==±===###############################	********		*******
Chloromethane	U	12	1
Bromomethane	U	12	1
Vinyl Chloride	U	12	1
Chloroethane	U	12	1
Methylene Chloride	B	69	1
Acetone	В	51	1
Carbon Disulfide	U	6	1
1,1-Dichloroethene	U	6	1
1,1-Dichloroethane	ย	6	1
t-1,2-Dichloroethene	U	6	1
1,2-Dichloropropane	U	6	1
Chloroform	ប	6	1
1,2-Dichloroethane	บ	6	1
2-Butanone	U	12	1
1,1,1-Trichloroethane	U	6	1
Carbon Tetrachloride	U	6	i
Vinyl Acetate	, U	12	1
Dichlorobromomethane	U	6	1 -
c-1,3-Dichloropropene	· U	6	1
Trichloroethene	IJ	6	1
Benzene	U	6	1
Chlorodibromomethane	IJ	6	1
1,1,2-Trichloroethane	U	6	1
t-1,3-Dichloropropene	U	6	1
2-Chloroethyl Vinyl Ether	U	12	1
Bromoform	U	6	1
2-Hexanone	U	12	1
4-Methyl-2-pentanone	ប	12	1
1,1,2,2-Tetrachloroethane	U	6	1
Tetrachloroethene	U	6	1
Toluene	Ü	6	1
Chlorobenzene	U	6	1
Ethylbenzene	U	6	1
Styrene	U	6	1
Total Xylenes	U	18	1

Date: 4-29-67 Page: 1

## IEPA ANALYSIS PROGRAM Report of INDRSANIC Results Soil Samples

Site ID: X104 Sample # : 87001450

PARAMETER	REMARKS (see inst.)	(OR)	VALUE (ug/kg)	DILUTION FACTOR
+ Aluminum			5000000	1
Antimony	UR	<	8000	1
* Arsenic			32300	10
* Barius			199000	1
Beryllium	U	(	1000	1
-k Cadmium			2400	1
* Calcium			133000000	10
* Chromium			213000	1
Cobalt	U	(	10000	1
* Copper			121000	1
* Iron			69300000	1
* Lead			958000	1
₩ Magnesium			10800000	1
* Manganese			1440000	1
Mercury	U	(	200	1
* Potassium			686000	1
*Nickel			54000	1
Selenium	URE	(	3200	5
Silver	U	(	400	1
<b>∜Sodium</b>			388000	1
*Thallium			550	1
Tin	U	(	20000	1
<b>★ Vanadium</b>			44400	1
* Zinc			241000	1

Laboratory Name: ENVIRODYNE

Case No: 6

| Sample Number: x104

#### Organics Analysis Data Sheet (Fage 2)

#### Semivolatile Compounds

Concentration: MEDIUM

Date Extracted/Frepared: 3-31-87

Date Analyzed: 4-21-87

Conc/Dil Factor: /

Percent Moisture (decanted): 17.25

GPC Cleanup : NO
Sep. Funnel Extraction : YES NO (circle one)
Contin. Liq.-Liq. Ext. : YES NO (circle one)

EAS No:		ugkg	CAS No:		nâŗā
108-95-2	Phenol	24000 U	83-32-9	Acenaphthene	2400: U
111-44-4	bis-(2-Chloraethyl)ether	24006 U	51-28-5	2,4-Dinitrophenol	120000 U
95-57-B	2-Chlorophenol	24000 U	100-02-7	4-Ni trophenol	120000 D
541-73-1	1,3-Dichlorobenzene	<b>24</b> 900 U	132-64-9	Dibenzofuran	24000 U
106-46-7	1,4-Inichlorobenzene	24000 B	121-14-2	2,4-Dinitrotoluene	24000 U
100-51-6	Benzyl Alcohol	24000 8	606-2(⊢2	2,6-Dinitrotaluene	24000 U
<del>95-50-</del> 1	1,2-Dichlorobenzene	24660 U	84-66-2	Diethyl phthalate	24000 U
<b>95-4</b> 8-7	2-Methylphenal	24000 13	7005-72-3	4-Chlorophenyl-phenyl ether	24000 U
39638-32-9	bis-(2-Chloroisopropyl)ether	24000 B	86-73-7	Fluorene	24000 U
106-44-5	4-Methylphenal	24000 Ü	100-01-6	4-Mitroaniline	12000ù U
621-64-7	W-nitroso-Di-n-prop <sub>i</sub> lamine	24656-0	534-52-1	4,6-Dinitro-2-Methylphenol	120000 U
67-72-1	Hexachloroethane	24690 U	86-30-6	N-nitrosodiphenylamine (1)	24000 U
<del>98-95-</del> 3	ki trobenzene	24000 U	101-55-3	4-Fromophenyl-phenyl ether	24000 8
76-57-1	Isapharane	24000 U	116-74-1	Hexach1 or obenzene	24000 U
BS-75-5	2-Ni trophenol	24000 U	67-86-5	Pentachlorophenol	120000 G
105-67-9	2,4-in aethylphenol	24000 U	<b>8</b> 5-01-8	Phenanthrene	24000 U
<b>65-85-</b> 0	Benzoic Acid	120000 U	120-12-7	Anthracene	24000 0
111-91-1	bis-(Childroethoxy) Methane	24000 U	84-74-2	Di-n-butyl phthalate	24000 U
120-83-2	2,4-Dichiorophenol	24000 U	206-44-0	Fluoranthene	24000 U
120-62-1	1,2,4-Trichlorobencene	24000 U	129-0(ú	Fyrene	24000 U
91-2(-3	Naphthalene	24000 U	<b>65-68-</b> 7	Butvi-benzyi-phthalate	24000 U
106-47-8	4-Chloroaniline	24900 U	91-94-1	3,3'-Dichlorobenzidine	48000 U
87-68-3	Hexachlorobutadiene	24006 U	56-55-3	Benzo (a) anthracene	24000 U
59-50-7	4-Chlore-3-sethylphenol	24000 U	117 <del>-6</del> 1-7	bis-(2-Éthylhexyl)phthalate	3600 83
91-57-6	2-Methylnaphthalene	24000 U	218-01-9	Chrysene	24000 U
77-47-4	Hexachlorocyclopentadiene	24000 U	117-84-0	Di-n-octyl phthalate	24000 U
88-06-2	2,4,6-Trichlorophenol	24606 U	205-99-2	Benzo(t)fluorantheme	24000 U
95-95-4	2,4,5-Trichlorophenol	120000 U	207-06-9	Benzo(k)fluoranthene	240X U
91-56-7	2-Chi or onaphthal ene	24000-B	<b>5</b> 6-32 <b>-8</b>	Benzo (a) pyrene	24000 B
88-74-4	2-Mitroaniline	120000 B	193-39-5	Indenci1,2,3-cdipyrene	24000 U
131-11-3	Dimeth-i phthalate	24000 B	<b>5</b> 5-70 <b>-3</b>	Dibenzo(a,h)anthracene	24000 U
208-95-8	Acenapth, lene	24000 B	191-24-2	Benzo (ghi ) per y Lene	240 × U
99-09-2	3-Mitroaniline	120000 U			

<sup>(1)-</sup>Cannot be separated from diphenylamine

Laboratory Name: ENVIRODYNE Case No: 6

1 Sample Number: x104 : 

Organics Analysis Data Sheet (Page 3)

Pesticides & PCB s

Concentration: MaDIUM Date Extracted Prepared:

Date Analyzed:

· · · · · ·

Conc/Dil Pactor: 1

Percent Moisture (decanted): 17.3

GPC Cleanup : 40

Sep. Funnel Extraction : YES - NO (circle char

Contin. Liq.-Liq. Ext. : (83 NO (circle one)

CAS No:	*************	ug kg	
			_
319-84-5	Alpha-BIL	150 U	
317 85-7	Reta-840	150 G	
317-66-8	Delta-BrC	150 6	
5ଟ-8ନ-ନ	Samea-SHC (Lindane)	150 U	
76-44-B	Heptachlor	150 U	
307-00-2	Aldrin	15.16	
1024-57-3	Heptachion Epoxide	150 ii	
<b>9</b> 59-98-8	Endosul√ar I	15: U	
69-57-1	Dielorin	29⊬ ს	
72-55-9	4,4 -DDE	290 U	
72-20-8	Endrin	259 b	
33213-65-9	Endosulfan-II	290 ป	
72-54-8	4,4 -050	200	
1071-07-8	Enoosulfan Sulfate	290 U	
59-29-3	4,4 -CDT	256 U	
72-43-5	Methoxychlor	5.	IJ
53494-775	Endrin hetone	150 b	
57-74-9	Chiordane	15.4	Ü
8991-35-1	Todaphene	7	Ĺ
12874-11-2	Anacion-1916	1500	Ü
11104-25-2	Arcolor-1221	i.	Ü
53469-21-7	Anaclar-1202	1500	Ü
53469-21-9		1500	į.
12572-29-5		1599	-
11097-65-1		20	Ü
11090-02-5	Arocior-12a)	27.53	Ü

Vi = volume of extract injected (ul) wa = Weight of sample extracted gr %t = %aleme of total extract (vi)

... = 1 q

Vt = 10,000 al

n = 2.0 as

#### ILLINDIS ENVIRONMENTAL PROTECTION AGENCY Contract Laboratory Services

NAME : Envirodyne Engineers, Inc.

SAMPLE NUMBER

CASE # : 3132-00006

X184

### ORGANICS ANALYSIS DATA SHEET SOIL SAMPLES

Tentatively Identified Compounds

CORS   NUMBER   COMPOUND NAME   FRACTION   RT (min.)   CONC. (ug/kg)	===		-	-	
2		COMPOUND NAME	FRACTION		CONC.
2 Cycloalkane BNA 16.66 2826 3 Cycloalkane BNA 19.90 2018 4 Unknown BNA 26.54 15014 5 Unknown BNA 27.45 14873 6 Unknown BNA 28.02 7676 7 Unknown BNA 32.44 46188 8 Unknown BNA 34.49 34960 9 Unknown BNA 34.54 27729 18 Unknown BNA 35.25 15976 11 Unknown 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	1	 Octanol	BNA	9.47	58487
4 Unknown BNA 26.54 15014 5 Unknown BNA 27.45 14873 6 Unknown BNA 28.02 7676 7 Unknown BNA 32.44 46188 8 Unknown BNA 34.09 34968 9 Unknown BNA 34.54 27729 10 Unknown BNA 35.25 15976 11 Unknown 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	2	Cycloalkane	BNA	16.66	2826
4 Unknown BNA 26.54 15014 5 Unknown BNA 27.45 14873 6 Unknown BNA 28.02 7676 7 Unknown BNA 32.44 46188 8 Unknown BNA 34.09 34968 9 Unknown BNA 34.54 27729 10 Unknown BNA 35.25 15976 11 Unknown 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	3		BNA	19.90	2018
5 Unknown BNA 27. 45 14873 6 Unknown BNA 28. 82 7676 7 Unknown BNA 32. 44 46188 8 Unknown BNA 34. 89 34968 9 Unknown BNA 34. 54 27729 18 Unknown BNA 35. 25 15976 11 Unknown 12 13 14 15 16 17 18 19 28 21 22 23 24 25 26 27 28 29			BNA		
6 Unknown BNA 28.02 7676 7 Unknown BNA 32.44 46188 8 Unknown BNA 34.09 34960 9 Unknown BNA 34.54 27729 18 Unknown BNA 35.25 15976 11 Unknown 12 13 14 15 16 17 18 19 29 21 22 23 24 25 26 27 28 29		Unknown	BNA		
7 Unknown BNA 32.44 46188 8 Unknown BNA 34.09 34968 9 Unknown BNA 34.54 27729 18 Unknown BNA 35.25 15976 11 Unknown 12 13 14 15 16 17 18 19 29 21 22 23 24 25 26 27 28 29	6				
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18 Unknown 12 13 14 15 16 17 18 19 29 21 22 23 24 25 26 27 28 29					
11 Unknown 12 13 14 15 16 17 18 19 29 21 22 23 24 25 26 27 28 29		Unknown	BNA		
13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	11	Unknown			
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15 16 17 18 19 20 21 22 23 24 25 26 27 28	13				
16 17 18 19 28 21 22 23 24 25 26 27 28	14				
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## ILLINDIS ENVIRONMENTAL PROTECTION AGENCY Contract Laboratory Services

LAB NAME : Envirodyne Engineers,	Inc.	I SAMPLE NUMBER
CASE # : 3132-00006		IX104 RE I

# ORGANICS ANALYSIS DATA SHEET SOIL SAMPLES Tentatively Identified Compounds

			I E II V A C	ively identified o	pou		
===	*******	#######	******		******	8=======	F#########
	CAS						ESTIMATED
	NUMBER		COMPOUND	NAME	FRACTION	RT	CONC.
						(min.)	(ug/kg)
	*******			=======================================		*======================================	222522222
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## APPENDIX B REFERENCES

February 28, 1985 APR 03 1365 المار الروع. Environmental Protection Agency (Land Polution) 2200 Churchill Road Springfield, Illinios Dear Sir. With the possibility of Fiat Allis closing the plant in the near future, I think that the City of Springfield should be made aware of some health hazards around the facility. I am unable to reveal my sources or my name, so there can be no implication, but I have someinformation that is vital to the safety of the public. With all of the publicity about PCB's, you should know that PCB's regularly leaked on the ground near the electrical substations throughout the plant. There was Cyanide dumped near the heat treatment facilities, along with other industrial toxins throughout the general area. I feel that someone in authority should be made aware of these problems, because if the area is ever developed for another use, for example, housing, these toxins could cause some devastating human problems. Please do not let this go unheeded, for the sake of unsuspecting people. Clean-up can be successfully done to restore the land to safety levels again. Do not take this as a vengeful or eccentric letter, I have absolutely nothing to gain by revealing this information. What you do with the information I have provided will have to be up to your conscience, I pray that it will be guided in the proper direction. Sincerely. RECEIVED 8881 8 S YAM A Concerned Human Being IEPA-DLPC

_			REF	ERENCE
ecology and environment, inc.	TELEPHONE L	og		
T.	OMPANY or AGENCY			POSITION
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CICNATURE				
SIGNATURE MOUNTAINS		PAGE		or



### PHONE CONVERSATION RECORD

Company and the second	Date 07 28 9	5
Conversation with:	Time	AM/PM
Name	11116	
Company Water Dept. of Springfield City	·	
Address	G Originator Placed Call	
	Originator Received Cal	1
Phone 217-789-2116		
Subject Water sources		
First Alles Plant à NA	1,NC. Spring fold	
Notes:	•	
1. Surface water as drinking was	ter in the cot	
no private wells		
1. The	2 /2 41	9. 1
- Intakes are on lake st	ringfield. about 2-1	nill yron
the site.		
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CHICAGO, ILLINOIS			
CONTACT.	COMPANY OF AGENCY		POSITION
Robert Predan	Fiat Allis NA		ESq.
CONTACT ADDRESS			PHONE NUMBER
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EAE EMPLOYEE	9/5/9	TIME	5
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ecology and environment, inc.	TELEPHONE L	og				
CHICAGO, ILLINOIS						
	COMPANY OF AGENCY		POSITION			
	Indrews Env. Enc	i ·	Marager			
CONTACT ADDRESS	5	CONT	ACT PHONE NUMBER			
1320 S. 5th St.	Springfield IL					
Lindahnova	9/7/95	'	1/ <sup>50</sup>			
PROJECT: NUMBER SITE NA	ME and LOCATION					
273057 Fiat	Allia Spr	ungfu	eld, IL			
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m 1993) Drug this						
Mr. Kugler did not ha	ne or know a	105	nistomogn to			
regarding the 1979 o	· 1 discharge	068	erved in the			
of site Storm Somer.	Since no	riola	trins occurred			
during the NPDES pero						
due to the U-Haml f	<u>^</u>		_ \ \ =			
During the RU	, —		' /			
all soil that was						
no granduater co						
Cell The buildings						
educational center,						
Numerous UST were removed, only two						
were reported as LUST incidents - the dead tank						
· ·	had a leak - ~ 2 to 5 gol. The hydraulic finid					
tank was suptured.	during the re	Mos	al process.			
SIGNATURE Judelah Myron						